

pBOSS1

(8398 bp)

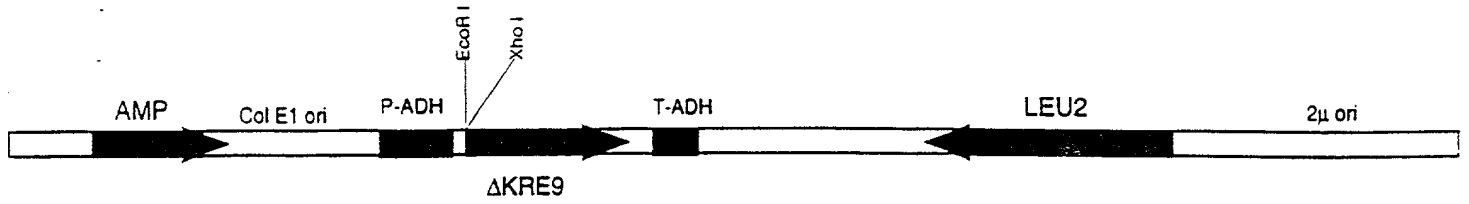


FIG. 1A

SIGNAL PEPTIDE SELECTION IN pBOSS1

- Step 1 Transform library into Δ KRE9 yeast strain
Titer on galactose
- Step 2 Plate transformants on glucose
- Step 3 Harvest colonies at day 2-4, rescue plasmid DNA in
batch
- Step 4 Transform E.coli DH10B, sequence ends of rescued
plasmids

FIG. 1B

TTCTTCCTAGTTTCTTTTTCGGCACAATA...TCAAGTTATACCAAGCATACAATCAACTCCC...TTGGGATCCGAATT	79
	M R S L L R 6
CGGCACGAGCGGCACGAGTTGTGCTTCGGAGACCGTAAGGATATTGATGACC ATG AGA TCC CTG CTC AGA	149
T P F L C G L L W A F C A P G A R A E E	26
ACC CCC TTC CTG TGT GGC CTG CTC TGG GCC TTT TGT GCC CCA GGC GCC AGG GCT GAG GAG	209
P A A S F S Q P G S M G L D K N T V H D	46
CCT GCA GCC AGC TTC TCC CAA CCC GGC AGC ATG GGC CTG GAT AAG AAC ACA GTG CAC GAC	269
Q E H I M E H L E G V I N K P E A E M S	66
CAA GAG CAT ATC ATG GAG CAT CTA GAA GGT GTC ATC AAC AAA CCA GAG GCG GAG ATG TCG	329
P Q E L Q L H Y F K M H D Y D G N N L L	86
CCA CAA GAA TTG CAG CTC CAT TAC TTC AAA ATG CAT GAT TAT GAT GGC AAT AAT TTG CTT	389
D G L E L S T A I T H V H K E E G S E Q	106
GAT GGC TTA GAA CTC TCC ACA GCC ATC ACT CAT GTC CAT AAG GAG GAA GGG AGT GAA CAG	449
A P L E V N I V S P S S K A T F S P S (Seq ID No. 4)	125
GCA CCA CTC GAG GTG AAT ATT GTT TCC CCC AGC TCC AAG GCA ACA TTC AGT CCA AGT	506
	(Seq ID No. 3)

FIG. 3

Comparison of novel protein sequence emxosb4a11
to murine semaphorin F (Genbank Accession number X97817)

Identities = 22/32 (68%), Similarities = 26/32 (81%)

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emxosb4a11:      1 MKGTCVIAWLFSSLGLWRLAHPEAQGTTQCQR 32 (SEQ ID NO:2)
                  MKG C++AWLFSSLG+WRLA PE Q   +CQR (SEQ ID NO:14)
mu semF:         1 MKGACILAWLFSSLGVWRLARPETQDPAKCQR 32 (SEQ ID NO:5)
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Underlined - predicted signal peptide

FIG. 4

**Comparison of emxosb4f08 to probable calcium-binding protein (CaBP)
(Genbank Accession number JS0027)**

emxosb4f08	1	<u>MRSLLRTPFLCGLLWAFCAPGARAE</u> EPAAFSQPGSMGLDKN	42
emxosb4f08	43	TVHDQEHIMEHLEGVINKEAEMSPQELQLHYFKMHDYDGNNL	84
		MSPQELQLHYFKMHDYDGNNL	
CaBP	1	MSPQELQLHYFKMHDYDGNNL	21
emxosb4f08	85	LDGLELSTAITHVHKEEGSEQAPL	109 (SEQ ID NO:4)
		LDGLELSTAITHVHKEEGSEQAPL	(SEQ ID NO:15)
CaBP	22	LDGLELSTAITHVHKEEGSEQAPL	45 (SEQ ID NO:6)

Underlined - predicted signal peptide

FIG. 5